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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,688	04/26/2005	Toshifumi Inoue	G110-075 US	8728

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ORANGEBURG, NY 10962-2100

EXAMINER

ZHU, JOHN X

ART UNIT PAPER NUMBER

2858

DATE MAILED: 01/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/532,688		INOUE ET AL.	
	Examiner		Art Unit	
	John Zhu		2858	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 4/26/05 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

1. Figures 8, 9 and 10 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or

REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a).

"Microfiche Appendices" were accepted by the Office until March 1, 2001.)

(f) BACKGROUND OF THE INVENTION.

(1) Field of the Invention.

(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

(g) BRIEF SUMMARY OF THE INVENTION.

(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

(i) DETAILED DESCRIPTION OF THE INVENTION.

(j) CLAIM OR CLAIMS (commencing on a separate sheet).

(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A

"Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

More specifically, an angle of the end surface is not clearly claimed.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (hereinafter AAPA) in view of Taimisto et al. (6,922,579 B2).

With respect to claim 1, AAPA discloses a physical property measuring probe that measures a complex dielectric constant of a measured object to measure a physical property value of the object such as water content comprising an internal electrode (Fig. 9, element 111), an external electrode arranged coaxially (element 112) with the internal electrode, and an end surface (113).

AAPA does not disclose the probe comprising forming an end surface thereof obliquely to an axial direction of the internal electrode and an angle of the end surface with respect to the axial direction of the internal electrode is set so as to obtain a desired electric length.

Taimisto discloses a probe tip, formed obliquely (Fig. 9) to an axial direction of the internal electrode (element 22) at an angle (element 38) with respect to the axial direction of the internal electrode set so as to obtain a desired electric length (Column 10, lines 59-62).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the oblique form as taught by Taimisto into the system of AAPA for the purpose of making sufficient and substantial contact with a target (Column 10, lines 48-51).

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6. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Taimisto as applied to claim 1 above, and further in view of Yang (6,734,689 B1).

With respect to claims 2 and 3, AAPA and Taimisto disclose all aspects of the claim except for explicitly disclosing the probe is detachably attached to a flexible probe-attached cable provided in the physical property measuring apparatus through coupling means by a threaded structure.

Yang discloses a probe detachably attached to a coaxial cable (known to be flexible) via coupling means (Fig. 12, element 170) with the probe is attached to the coupling means by a threaded structure (element 102).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the probe coupling means as taught by Yang into the system of AAPA and Taimisto for the purpose of connecting the probe to the processing/control unit.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA and Taimisto as applied to claim 1 above, and further in view of Campbell et al. (6,370,426 B1).

With respect to claim 4, AAPA and Taimisto disclose all aspects of the claim except for a temperature sensor being arranged in the vicinity of the end surface.

Campbell, in his invention of a moisture sensor, discloses a temperature sensor (Column 2, lines 48-50) enclosed at end of the probe housing.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the temperature sensor as taught by Campbell into the system of AAPA and Taimisto for the purpose of automatically compensating for the effects of temperature variations during the measurement process (Column 1, lines 50-53).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Morey (3,581,197) discloses a moisture probe comprising a probe detachably attached to a processing box via coaxial cable and plug. Satoru (JP 02-110357) discloses a physical property measuring device using reflected waves. Bernhard (US PG Pub no. 2005/0212532 A1) discloses a method and device for determining moisture content materials. Cramer et al. (6,401,742 B1) discloses a moisture sensor for sensing water content in a zone area of an irrigated land. Phare (5,397,994) discloses a moisture measurement gauge with an oblique sensing surface. Yankielun et al. (5,648,724) discloses a moisture sensor utilizing time-domain reflectometry analysis.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Zhu whose telephone number is (571) 272-5920. The examiner can normally be reached on M-F, 8-4:30.

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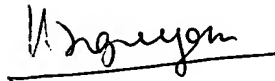
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diane Lee can be reached on (571) 272-2399. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

John Zhu
Examiner
Art Unit 2858



JZ



VINCENT Q. NGUYEN
PRIMARY EXAMINER